REMARKS

Claims 1-8 are pending in the present application.

As a preliminary matter, the Examiner asserts that Fig. 1 should be designated by a legend such as --Prior Art--. Applicants submit a corrected replacement copy of Figs. 1 and 2.

As an additional preliminary matter, Applicants propose pointing out to the Examiner that the term "y(·)" as originally disclosed on page 6, line 2, was corrected to "$\gamma[\hat{\tau}_i]$" in the Preliminary Amendment of August 11, 2000. In the preliminary amendment, the change was mistakenly listed as being on page 5 when the change was intended for page 6.

Turning to the merits of the application, claims 1-4 and 7 are rejected under 35 U.S.C. § 102(e) are being unpatentable over Marchok *et al.* (U.S. Patent No. 6,122,246) (Marchok). Claims 5-6 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Applicants have added new claim 8 and submit the following in traversal of the prior art rejections.

Applicants submit that claim 1 is believed to be patentable because each and every element of the claim is not disclosed or suggested by Marchok. For example, Applicants submit that the reference fails to disclose or suggest:

(b) averaging phase differences detected in step (a) for a symbol

in combination with other elements of the claim. In the Office Action, the Examiner indicates that $P_{i,j}$ and $H_{i,j}$ disclose the claimed averaging phase differences. To the contrary, $P_{i,j}$ and $H_{i,j}$ refer to the average *power* and *coherence* in the ith bin and for the jth index over L symbols.

Col. 9, lines 39-40. Such average values do not disclose or suggest averaging inter-pilot phase differences.

Moreover, Applicants submits that the Examiner has not shown how the reference discloses or suggest:

> (b) averaging phase differences detected in step (a) for a symbol to generate a mean phase difference value and normalizing the mean phase difference by dividing the mean phase difference value into reference values corresponding to phase differences generated when FFT window errors of at least one sample exist, thereby to generate a normalized value;

in combination with other elements of the claim. Rather, Marchok discloses an estimate of the fractional *frequency* offset which is the *frequency* offset normalized by the bin width. Col. 11, lines 49-58. While Marchok does disclose a phase offset between consecutive pilot symbols, no mention is made regarding generating a mean *phase* difference value or normalizing the mean *phase* difference, as claimed.

Thus, for at least the above reasons, claim 1 is believed to be patentable.

Claim 2, which depends from claim 1, is believed to be patentable for at least the reasons submitted for claim 1.

Applicants submit that claim 3 is believed to be patentable because Marchok fails to disclose or suggest a phase difference calculator as claimed. In the claim, the phase difference calculator averages the phase differences for one symbol to generate a means phase difference value and normalizes the mean phase difference value by dividing the mean phase difference value into predetermined reference values. As argued above, the digital signal processing

8

portion 185, cited by the Examiner as being analogous to the phase difference calculator, does not generate a mean phase difference value nor normalize a mean phase difference.

Since Marchok fails to disclose or suggest the normalized means phase difference, the reference fails to disclose or suggest a FFT window controller for rounding off the normalized value output by the phase difference calculator, as claimed.

Claims 4 and 7, which depend from claim 3, are believed to be patentable for at least the reasons submitted for claim 3.

Applicants submit new claim 8 to more fully claim the invention. No new matter is added and the new claims are fully supported in the original disclosure.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Appln. No. 09/555,046

The USPTO is directed and authorized to charge all required fees, except for the Issue

Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any

overpayments to said Deposit Account.

Respectfully submitted,

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*Granted limited recognition under
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10